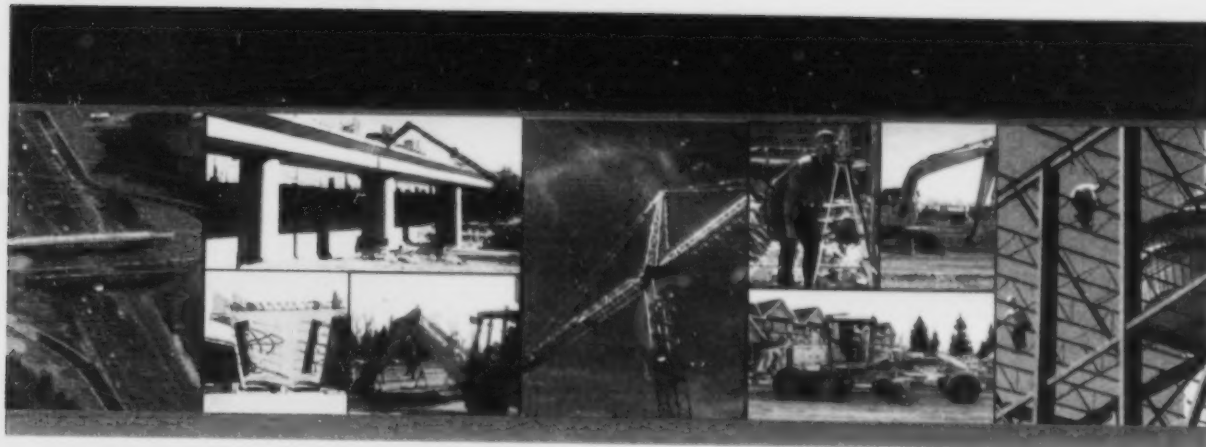




Industrial Area Growth

**Information Update
2004-2008**

November 2004



THE CITY OF
CALGARY
LAND USE PLANNING
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FOREWORD: THE CITY'S GROWTH MANAGEMENT INFORMATION PRODUCTS

Calgary's growth-related challenges are significant, but so are the benefits of orderly, well-managed and equitably-financed growth. The City of Calgary is responsible for managing and coordinating the planning and investment needed to accommodate growth.

To assist in this management, The City has developed a research program to analyse growth expectations and coordinate the plans for infrastructure and services to support that growth. One of the products from this work is a series of information documents:

- *Suburban Residential Growth Information Update* (annual);
- *Accommodating Growth: Municipal Capital Investment Framework* (annual); and
- *Industrial Growth Information Update* (annual / semi-annual as required).

Together these documents provide City Council, the Administration, private developers and the public with the base information they need to plan for growth and change. The documents share some common information but each has a specialized focus. The following chart summarizes the content of these documents and shows how the current document, *Industrial Area Growth: Information Update*, fits into the overall package of information.

For business development, investment and site selection inquiries please contact Calgary Economic Development at (403) 221-7831 or 1 (888) 222-5855. For more information please visit their website at:

www.calgaryeconomicdevelopment.com

INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

	SUBURBAN RESIDENTIAL GROWTH INFORMATION UPDATE	ACCOMMODATING GROWTH: MUNICIPAL CAPITAL INVESTMENT FRAMEWORK	INDUSTRIAL GROWTH INFORMATION UPDATE
FOCUSES ON:	Suburban residential development in the last 5 years and the next 5 years	City's capital budget plans for suburban residential growth in the next 20 years.	Industrial land supply and growth expectations.
PROVIDES CURRENT INFORMATION ON:	- City approach to managing residential land supply - inventory of suburban residential land supply including: - planning approval status - water and wastewater servicing plans for future water and wastewater service extensions - transportation improvements - historical suburban residential development activity - current suburban growth dynamics - method of forecasting growth locations	- City approach to managing residential land supply - Overview of financing infrastructure required for growth - City's overall capital budget - Budget and location of all City capital projects related to growth from the current City budget - Operational framework and the process followed to plan for new development	- City approach to managing industrial land supply - Inventory of industrial land supply including: - Immediate supply (fully serviced); - Short Term supply (partially serviced); and, - Long Term Supply (unserved reserve land). - Industrial development activity - Listing of planned citywide growth related transportation projects.
OUTLINES FUTURE EXPECTATIONS FOR:	5-year population and housing forecasts by city sector - the balance between existing serviced land supply and the expected demand.	5, 10, 15 and 20 year population and housing forecasts by city sector - City capital expenditures related to growth for the next 5, 10 year and beyond (where possible) by area of operation and city sector	- related land demand estimates - Recommendations for industrial policy studies and research.

PART 1: INDUSTRIAL LAND SUMMARY

CITYWIDE INDUSTRIAL LAND SUPPLY AND DEMAND

The City of Calgary has 47 sections (12,040 hectares) of industrial land supply within its municipal boundary. Of this total 67% (8,127 hectares) is developed, leaving 3,913 hectares of vacant gross land supply available for future development.

Over the past year 165 hectares (408 acres) of industrial land have been developed. This rate of absorption is higher than the forecast long term industrial land absorption estimates of approximately 120 hectares per year. (A series of above/below average years will be required to significantly shift the historical absorption rate higher/lower than the average estimate of 120 hectares per year). The spatial allocation of this activity by major industrial area for 2003 is:

Industrial Area	Land Absorbed
North/Northeast	59
Southeast	93
Central	0
Northwest	13
Total	165

Based on the available land supply, and anticipated long-term absorption average rates of 120 hectares of land per year, Calgary has a total of 32 years of land supply within its jurisdiction. The following table indicates the remaining years of supply of immediate (fully serviced), short-term (partially serviced) and long-term (reserve) lands.

	Immediate Land Supply	Short Term Land Supply	Long Term Land Supply	Total
Total Supply	639	1,164	2,061	3,864
Years of Supply Remaining @ the estimated absorption rate of 120 hectares per year	5.3	9.6	17.0	31.9

THERE IS A SUFFICIENT FUTURE INDUSTRIAL LAND SUPPLY: BUT THREATENING SIGNS ARE ON THE HORIZON

Three decades of potential industrial land supply is required by Council policy. However, a number of factors may result in significant reductions in the three decades of estimated supply currently available. The development of Forest Lawn Creek, and affiliated park/regional pathway areas, could significantly reduce the amount of land available in the southeast industrial area for industrial uses. The potential loss of major roadway interchange connections with the future East Freeway at 61 Avenue S.E. and 106 Avenue S.E. could, potentially, limit future industrial employment capacity and land use densities in the entire southeast industrial growth area east of 52 Street S.E.

In addition to these known events, future demand for industrial land by non-industrial users is expected to continue. Commercial and institutional use of industrial land continues to increase. In 2003 74% of all building permit activity in industrial areas was for commercial projects, while 64% of all building permit value (\$144.2 million) was for some form of commercial development (total building permit value on industrial lands in 2003 was \$222.8 million).

CALGARY'S INDUSTRIAL LAND SUPPLY IS SIGNIFICANT, BUT NOT LIMITLESS

Annexing additional lands in a timely manner, prior to significant subdivision and fragmentation of future reserve lands, is expected to become increasing more difficult. Unserved and self serviced industrial development, similar to the areas developing on the city edge in the southeast (east of 84 Street S.E.) are expected to expand, further encumbering The City's ability to plan as a 'unicity' for industrial growth. Ongoing monitoring of the land supply situation, and resulting policy guidance, is required to help ensure that existing and potential inventories of industrial land, as mandated by City Council, remain for industrial use and Calgary's continued economic development.

PART 2: INDUSTRIAL LAND SUPPLY AND DEMAND

The four major industrial areas are: the North/Northeast Industrial Area; the Southeast Industrial Area; the Central Industrial Area and the Northwest Industrial Area (including the Calgary Research and Development Park). These industrial areas are shown on Map 1.

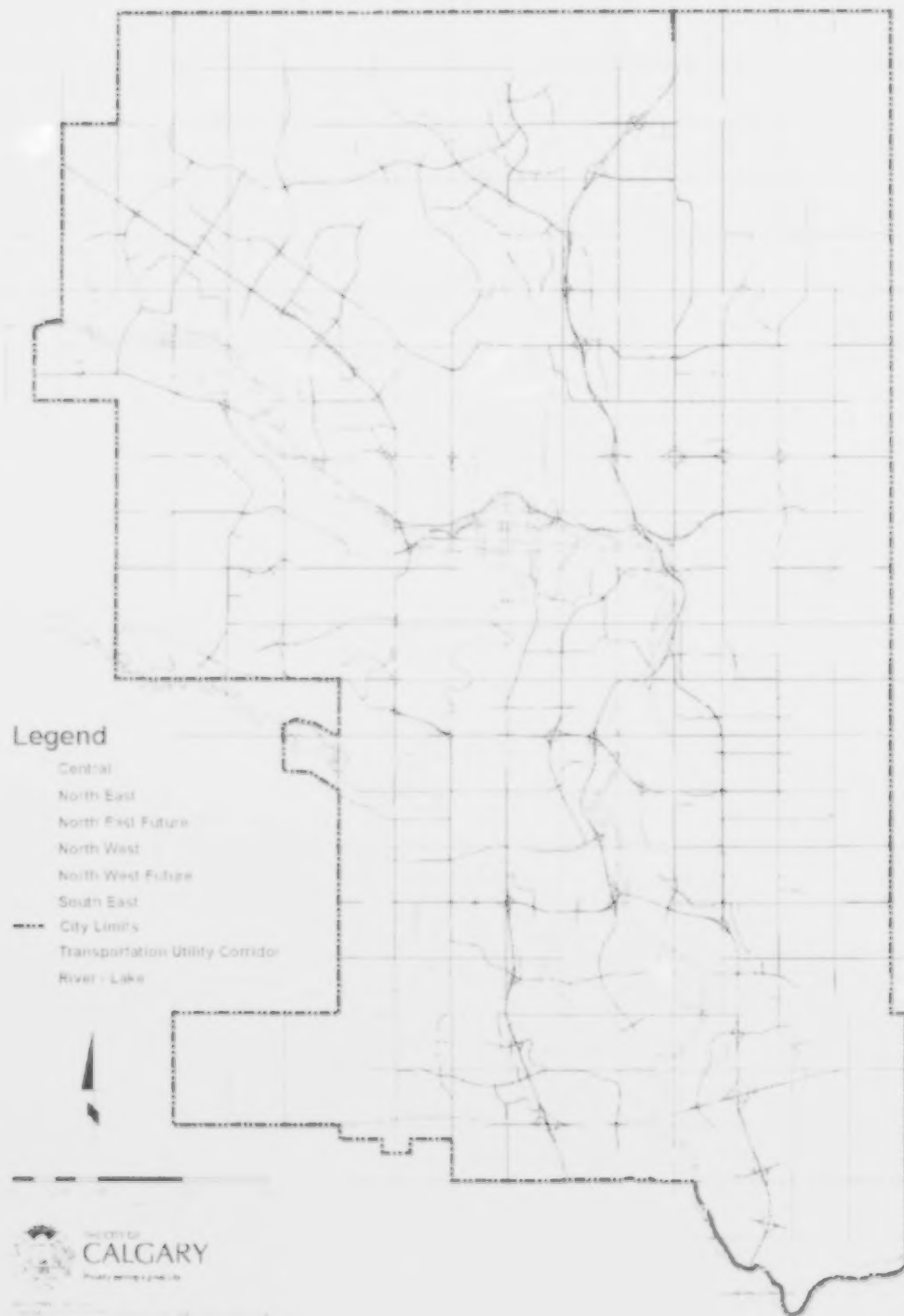
LAND SUPPLY

An evaluation of the current vacant land supply by category was conducted in the first quarter of 2004. Aerial photographs (September 2003), and the previous year's inventory, were supplemented with field surveys and discussions with various industrial land stakeholders to determine the extent of industrial development that has occurred over 2003. Pending subdivision applications (applications received but not fully 'processed') are provided for the January 1, 2004 to March 30, 2004 period. Updates to the year to year absorption of industrial land have been highlighted in this year's report, to better illustrate areas of recent industrial building permit activity. Absorption of industrial land, includes:

- all land that is redesignated to non-industrial uses at the subdivision/outline plan stage; or,
- vacant land parcels with a building permit application for a new structure.

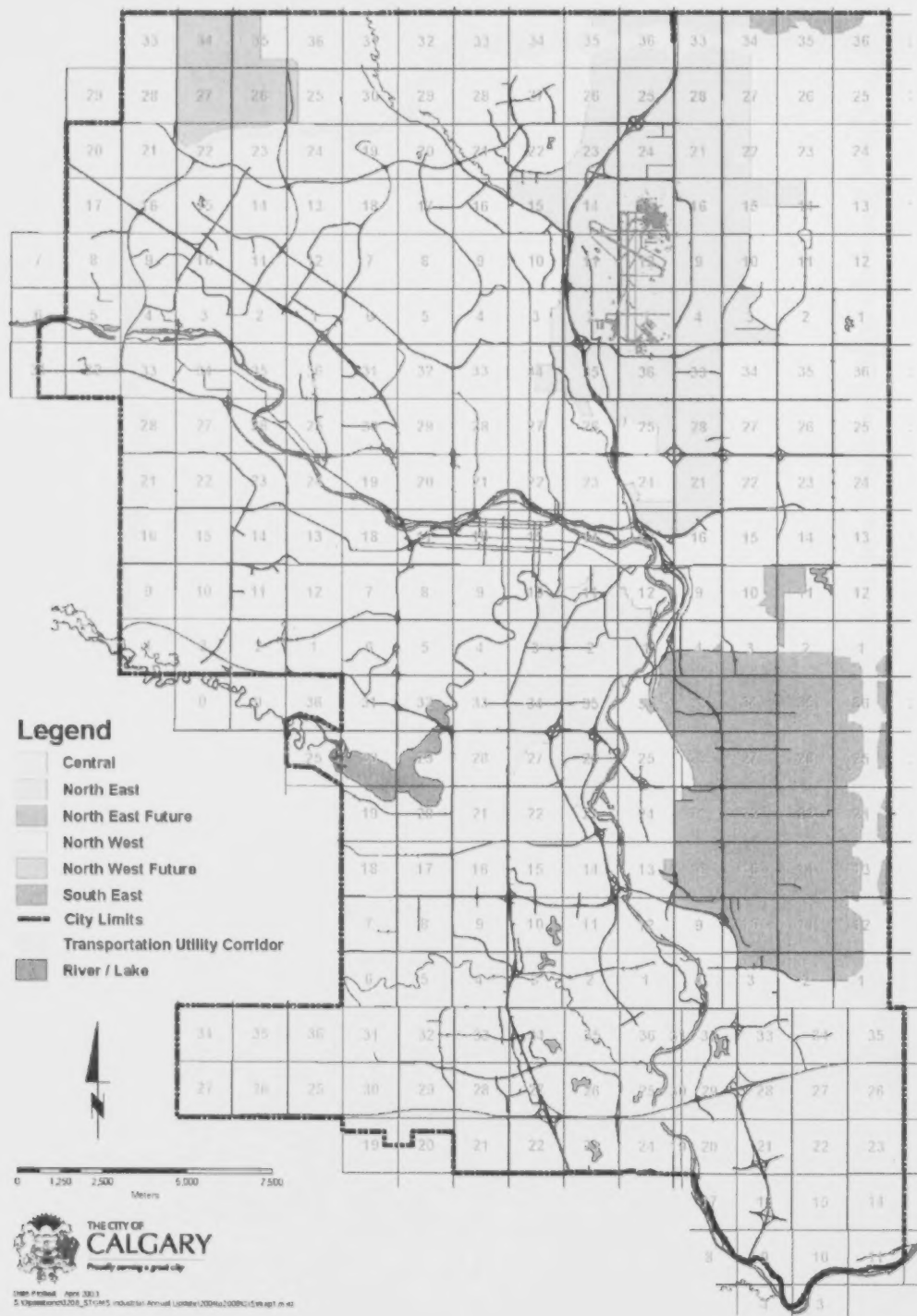
Discussions with various municipal business units (i.e., Wastewater, Drainage and Waterworks, and Roads) were also held to determine the status of major utility upgrades and road improvements throughout the industrial areas.

Map 1: Industrial Areas



INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

Map 1: Industrial Areas



INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

Vacant Land Inventory and Definitions

Summary totals of all vacant industrial land are provided in Table 1.

Table 1: Total Vacant Industrial Land Supply
(hectares)

Industrial Area	Vacant Industrial Land Inventory*
North/Northeast	2,097
Southeast	1,469
Central	23
Northwest	276
Total	3,865

NOTES:

*For the purposes of this report, ***vacant land*** includes:

- subdivided land that has not been developed - i.e., tentative plan lots that have not, to January 1, 2004, had a building permit application for a new structure. Once a building permit application is received, the lot is removed from the inventory; and/or,
- vacant unsubdivided land that has land use in place - i.e., all vacant lands with an industrial designation. (All non-industrial land uses are removed from the inventory at the land use/outline plan stage); and/or,
- vacant unsubdivided land that is not designated but which has a policy plan in place; and/or,
- vacant reserve lands within generally defined industrial growth corridors (i.e., lands which are **not** within residential growth corridors).

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A number of **recalculations of vacant land supply were performed for the current report.** Prior to the 2003 report, any industrial land that was redesignated to an industrial use, and subdivided was considered 'developed' and removed from the land inventory. In the current report, land is not removed from the inventory until a building permit is received on site, land is redesignated to a non-industrial use, *or it is known that an adjacent owner is holding the land for future expansion.*

Serviced Land Supply (Maps 2 to 5)

The extent of vacant lands that are either developed, fully serviced (with storm, sewer, water), partially serviced (requiring one or more major services), or unserviced is provided in the Serviced Land Supply maps. Fully serviced land is defined as land that does not require any additional City extensions to the three major utilities or any additional utility servicing studies and/or servicing agreements. ***However, private service connections to individual properties are still required.*** Partially serviced land may also include lands that are technically fully serviced, but which require additional storm/water/sanitary servicing studies. Once the pending Stoney Industrial Area Structure Plan is approved the area will be indicated as 'fully serviced.'

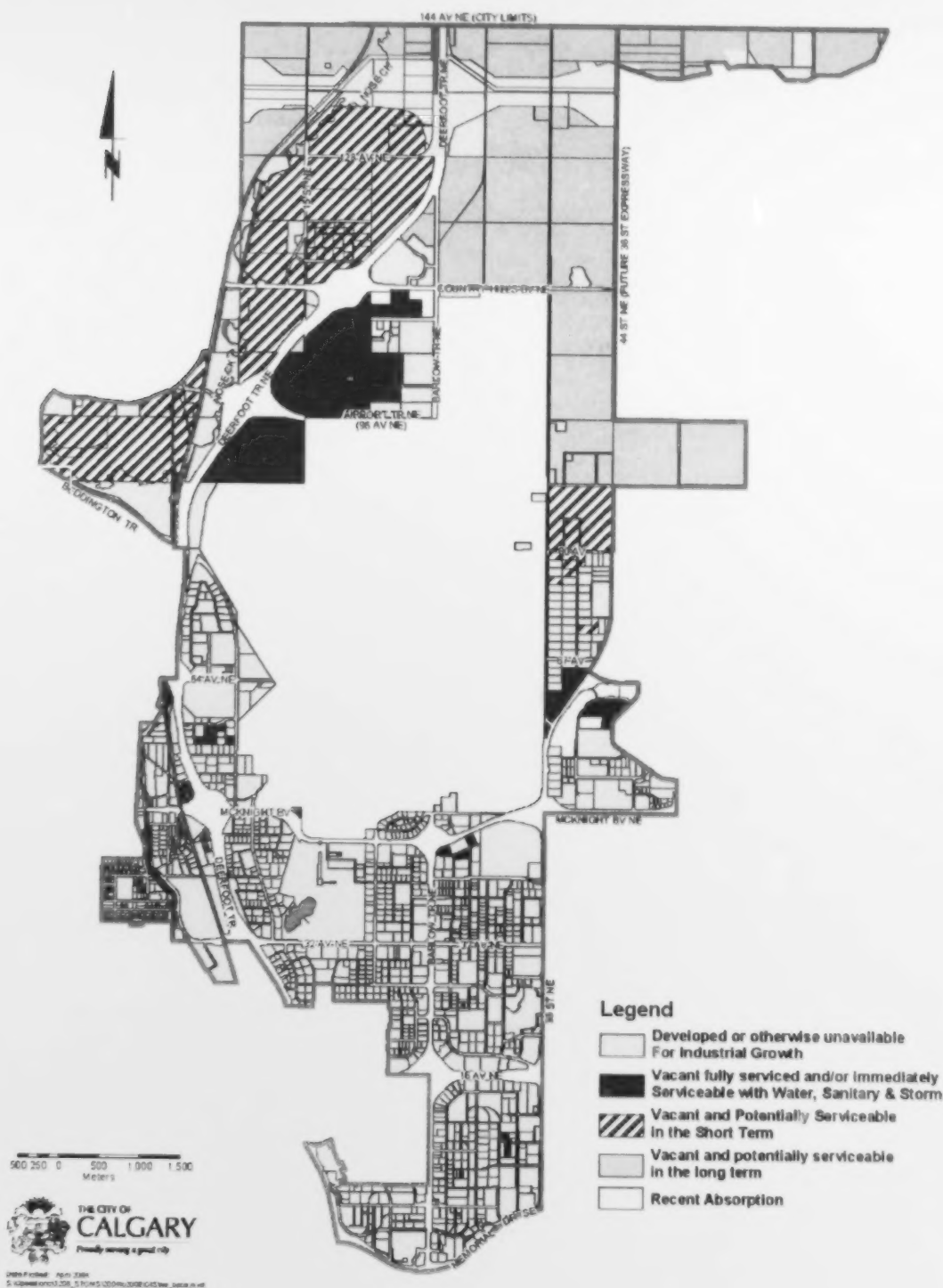
Serviced land supply is illustrated on Maps 2 to 5. Summary area information by serviced land category is presented in Table 2.

Discussion of Serviced Supply

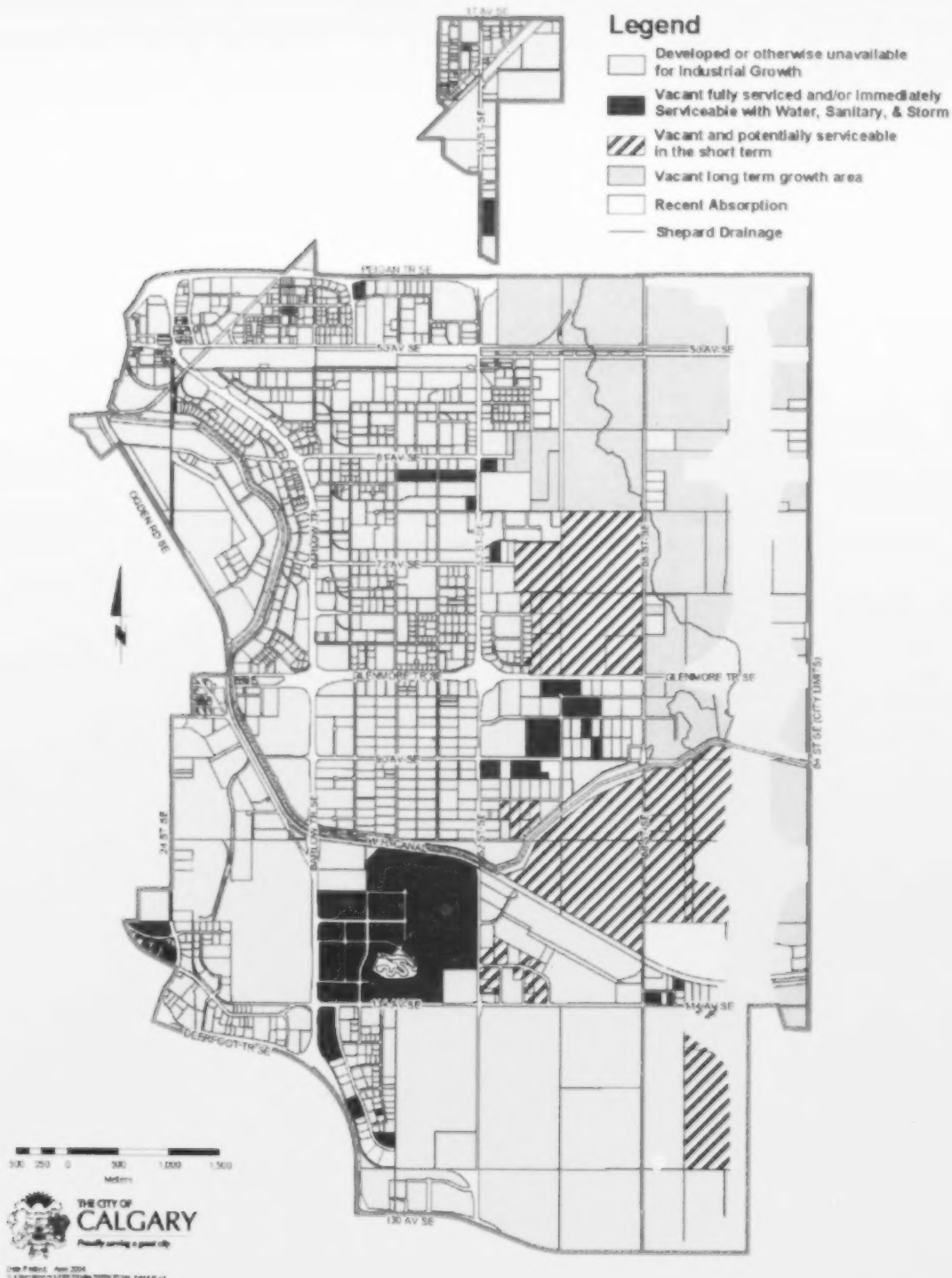
Industrial lands account for 17% of the gross land area within the city limits: 12,040 hectares (29,750 acres), or approximately 47 sections. Of this total, approximately 67% or 8,127 hectares (20,082 acres) are developed.

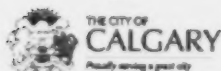
The total inventory of developable industrial lands is 3,864 hectares (9,548 acres). Land with all required services in place totals 639 hectares (1,579 acres). Lands lacking one or two major municipal services total 1,164 hectares (2,876 acres). Lands without any major services in place total 2,061 hectares (5,093 acres). The distribution of land by supply categories and by industrial area is provided in Table 2.

Map 2: North/Northeast Industrial Area Serviced Land Supply

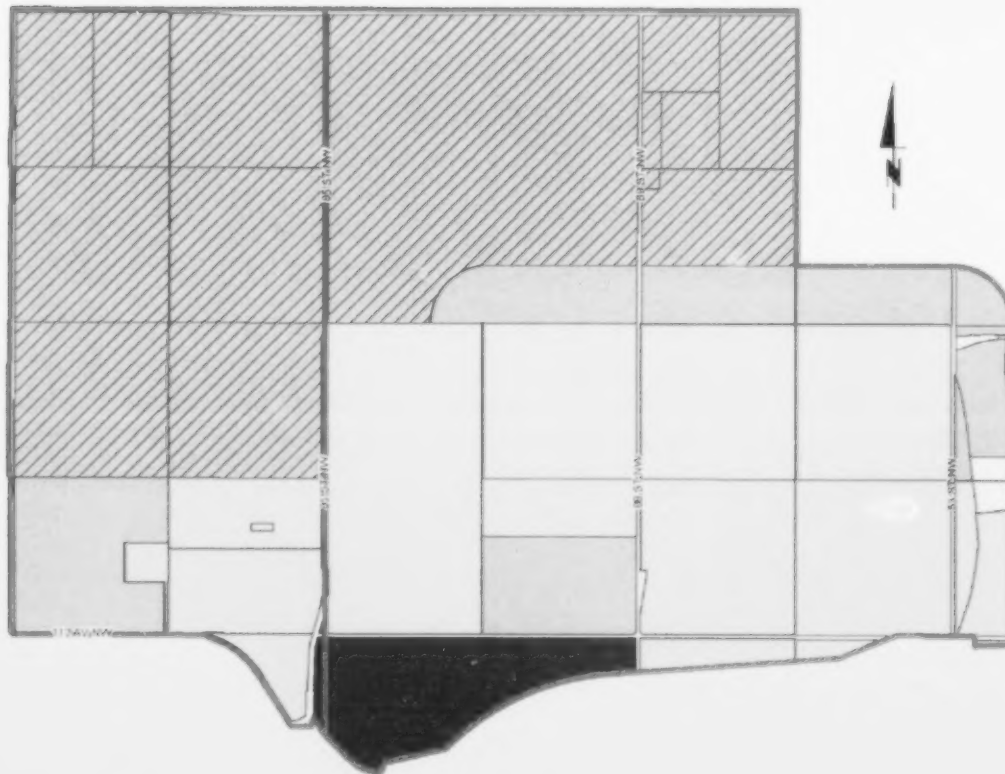


Map 3: Southeast Industrial Area Serviced Land Supply





Map 5: Northwest Industrial Area Serviced Land Supply



Legend

-  Developed or otherwise unavailable
For Industrial Growth
-  Vacant fully serviced and/or immediately
Serviceable with Water, Sanitary & Storm
-  Vacant and potentially serviceable
In the short term
-  Vacant - Gravel Operation
-  Recent Absorption



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INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

Table 2: Summary of Land Area by Supply Category and Industrial Area
(hectares)

Industrial Area	Developed / Unavailable	Immediate Land Supply	Short Term Land Supply	Long Term Land Supply	Total
North/Northeast	2,376	283	640	1,173	4,472
Southeast	3,764	263	524	682	5,233
Central	1,437	22	0	0	1,459
Northwest	599	71	0	206	876
Total	8,176	639	1,164	2,061	12,040

Table 3 indicates the changes in land supply over the last year.

Table 3: Change in Land Supply: 2003 to 2004
(hectares)

Industrial Area	Change in Immediate Land Supply	Change in Short Term Land Supply	Change in Long Term Land Supply
North/Northeast	-53	0	-7
Southeast	-49	-44	0
Central	0	0	0
Northwest	0	0	-12
Total	-102	-44	-19

* 6 ha of absorption in the Central Industrial area is a result of land reclassification.

The major changes in industrial land supply over the last two years are:

- **165 hectares (406 acres)** of immediate industrial land supply were 'taken up' or absorbed over the past year. This includes all land absorbed for industrial uses, storm pond areas, non-industrial uses (i.e., commercial, institutional, and/or recreational), reserve lands, and other non-industrial lands (environmental reserve and road rights of way).
- Significant absorption of serviced land capacity has taken place in the northeast Westwinds Industrial Park (northeast of 36/44 Street N.E.) for the Calgary Transit Light Rail Vehicle yards. Land requirements for the Westwinds LRT facility and yard, as well as commercial development abutting 64 Avenue N.E. accounts for the majority of this absorption. Some smaller commercial sites have been developed in the Freeport Industrial Park (north of the airport) as well.

INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

- The majority of the 93 hectares (230 acres) of absorption of land in the southeast is in the Eastlake Industrial Park developed by Corporate Properties and by a large private development abutting the TUC (transportation utility corridor).
- Absorption of land in the Northwest Industrial area was 12 ha (30 acres) for development related to commercial growth in the Symons Valley area.
- Immediate supply decreased by 102 ha (252 acres); short term land supply decreased by a total of 44 hectares (109 acres); and, long term supply diminished by 19 hectares (47 acres).
- Redesignation of lands to non-industrial uses in the Eastlake industrial development (storm water pond) and the Westwinds area (i.e., to institutional uses for the LRV storage and maintenance facility) were the largest single consumers of industrial land.

Table 4 illustrates the distribution of serviced vacant land by parcel size and by industrial area. A range of parcel sizes are required to accommodate the broad range of potential industrial uses allowed within all industrial areas.

Table 4: Number of Vacant Serviced Parcels by Parcel Size and Industrial Area
(hectares)

Industrial Area	Less Than 1 Hectare (2 acres)	1 to 4 Hectares (2 to 10 acres)	4 to 16 Hectares (10 to 40 acres)	16 to 32 Hectares (40 to 80 acres)	Greater than 32 Hectares (80 acres)
North/Northeast	13	9	8	1	3
Southwest	54	62	4	0	2
Central	2	5	1	0	0
Northwest	6	1	4	1	0
Total	75	77	17	2	5

PLANNED LAND SUPPLY AND POLICY CONTEXT (MAPS 6 TO 9)

In addition to basic information on land servicing, this report categorizes serviced and unserviced land supply by stage in the 'planning pipeline'. The planning pipeline includes the following categories:

- Urban Reserve Lands - lands annexed to the City, and held for municipal purposes, but not yet redesignated to a specific active land use. Urban reserve land may or may not have additional policy plans describing their intended future land use. A 30 year supply of land is required within the municipal boundary for all urban reserve lands, policy planned land and other vacant serviced/serviceable lands.
- Policy Planned Land (2 to 5 years to complete)- lands that have been included in a policy planning study, including an Area Structure Plan (ASP), Area Redevelopment Plan (ARP), design brief or other policy plan. These plans describe the future intended general land use of an area, including proposed future road and municipal infrastructure, and related public amenities (e.g. school sites, environmental reserve, proposed recreational facilities). Council requires 15 years of policy planned land within the municipal boundary.
- Subdivided Land with Land Use (6 months to 1 year) – lands that have a completed Outline Plan and corresponding land use amendment redesignating the land to a specific land use district. These lands are also generally serviced or serviceable (roads, storm, sanitary, and water). At this stage in the planning process the road network, lotting plan, land use, and general urban design character of a community are defined and prescribed in the actual land use district bylaws. General practice (based on residential land development requirements) has resulted in the City endeavoring to plan and service a five year supply of industrial land.
- Development Approvals (3 to 6 months) – once the outline plan is registered and land use is applied to the land, applications for development and building permits and other requirements will be accepted by the Approving Authority.

INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

The following figure illustrates the planning pipeline for industrial land.

Figure 1: THE PLANNING/DEVELOPMENT PIPELINE

Simplified Relationship Between Planned Land Supply,
Serviced Land and Land Supply Categories

<i>Policy Status</i>	Urban Reserve (and/or AG) "No Policy Plan in Place"	Policy Plans (ASPs, Design Briefs)	Land Use Outline Plan	Subdivision Tentative Plan	Development Approvals DPs, BPs, etc.
<i>Servicing Status</i>	Not Serviced	Partially Serviced • private agreement may bring services sooner • unserviced industrial land applications possible.	Serviced • no additional city services required • private servicing 'extensions' to development sites is required		
<i>ISTGMS Land Supply Category</i>	'Long Term'	'Short Term'	'Immediate'		
<i>Tabulated Land Supply Data</i>	RAW Land	Gross Land	Net Developable non-industrial LU removed from inventory	Net Vacant Land lots removed from inventory	
<i>Policy Mandate</i>	30 Year supply MDP (1-18)	15 Year Supply ISTGMS policy	5 Year Supply RSTGMS operational principle		
<i>Approximate Time to Construction</i>	5 to 30 Years	2 to 5 Years	6 months to 1 Year		

The City, in collaboration with private industry, is charged, therefore, with maintaining sufficient long-term residential **and** industrial land at three planning stages (see Table 5 below):

- a total land supply of 30 years (i.e., all vacant subdivided, policy planned and reserve land designated 'UR: Urban Reserve' or 'AG: Agricultural') land;
- a 15 year supply of policy planned land (including land with subdivision and land use in place); and,
- a 5 year supply of subdivided land with major servicing in place.

I-4 Limited Serviced Industrial development does not require the systematic development process as outlined above. Applications for land use redesignation and subdivision can be approved earlier in the 'planning pipeline' and clearly, without the same servicing constraints and servicing provisions required for serviced industrial

INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

The following figure illustrates the planning pipeline for industrial land.

Figure 1: THE PLANNING/DEVELOPMENT PIPELINE

Simplified Relationship Between Planned Land Supply,
Served Land and Land Supply Categories

<i>Policy Status</i>	Urban Reserve (and/or AG) "No Policy Plan in Place"	Policy Plans (ASPs, Design Briefs)	Land Use Outline Plan	Subdivision Tentative Plan	Development Approvals DPs, BPs, etc.
<i>Servicing Status</i>	Not Served	Partially Served • private agreement may bring services sooner • unserved industrial land applications possible.	Served • no additional city services required • private servicing 'extensions' to development sites is required		
<i>ISTGMS Land Supply Category</i>	'Long Term'	'Short Term'	'Immediate'		
<i>Tabulated Land Supply Data</i>	RAW Land	Gross Land	Net Developable <i>non-industrial LU removed from inventory</i>	Net Vacant Land <i>lots removed from inventory</i>	
<i>Policy Mandate</i>	30 Year supply MDP (1-18)	15 Year Supply ISTGMS policy	5 Year Supply RSTGMS operational principle		
<i>Approximate Time to Construction</i>	5 to 30 Years	2 to 5 Years	6 months to 1 Year		

The City, in collaboration with private industry, is charged, therefore, with maintaining sufficient long-term residential **and** industrial land at three planning stages (see Table 5 below):

- a total land supply of 30 years (i.e., all vacant subdivided, policy planned and reserve land designated 'UR: Urban Reserve' or 'AG: Agricultural') land;
- a 15 year supply of policy planned land (including land with subdivision and land use in place); and,
- a 5 year supply of subdivided land with major servicing in place.

I-4 Limited Served Industrial development does not require the systematic development process as outlined above. Applications for land use redesignation and subdivision can be approved earlier in the 'planning pipeline' and clearly, without the same servicing constraints and servicing provisions required for serviced industrial

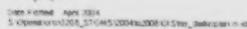
INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

development. In addition, I-4 industrial uses are identified as 'interim' uses, with the expectation that the all I-4 areas will transition to a fully serviced I-2 standard.

Table 5: Summary of Land Supply by Planning Category and Industrial Area
(hectares)

Industrial Area	Vacant Land Supply*		2003-2004 Development**
	Planning Category	Land Supply (Hectares)*	Building Permits (\$)
North/Northeast	Reserve Lands (No Policy in Place)	563	\$0
	Designated Lands (No Policy in Place)	0	\$400,675
	Policy Planned Lands	1533	\$107,157,904
	Area Total	2096	\$107,558,579
Southeast	Reserve Lands (No Policy in Place)	0	\$0
	Designated Lands (No Policy in Place)	0	\$0
	Policy Planned Lands	1508	\$70,608,649
	Area Total	1508	\$70,608,649
Central	Reserve Lands (No Policy in Place)	0	\$0
	Designated Lands (No Policy in Place)	32	\$22,989,288
	Policy Planned Lands	0	\$5,928,250
	Area Total	32	\$28,917,538
Northwest	Reserve Lands (No Policy in Place)	160	\$0
	Designated Lands (No Policy in Place)	386	\$600,000
	Policy Planned Lands	443	\$15,170,000
	Area Total	989	\$15,770,000
City Total		4625	\$222,854,766

Map 6: North/Northeast Industrial Area Planned Land Supply





Map 8: Central Industrial Area Planned Land Supply





☐ Designated Land with No Policy Plan in Place

☐ Designated Land with Policy Plan in Place

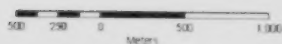
☐ UR with Policy Plan in Place

☐ UR with no Policy Plan in Place

☐ Subdivision - Approved

▪ Building Permit

TUC



Land Supply for I-2 (General Light Industrial), I-3 Heavy Industrial and I-4 Limited Service Industrial Uses in the Southeast Industrial Area

Industrial development may proceed with, or without, servicing and therefore development may proceed at different stages in the planning process. There is, therefore, a need to map land and track land areas available for both serviced and unserviced industrial development. The following map and table illustrates the location and extent of land available for serviced 'I-2 General Light Industrial', 'I-3 Heavy Industrial' uses and 'I-4 Limited Service Industrial' development (Map 10 and Table 6).

The reclassification of lands resulting from the Eastlake Industrial park and subdivision, eliminated all future I-3 Heavy Industrial lands in the southeast industrial area, and, in fact, citywide. Current difficulties in locating heavy industrial activity outside of its traditional core area in the southeast industrial area (e.g. the Ranchers Beef facility), and the lack of suitable policy planned lands for this activity (either in the Municipal Development Plan or related industrial Area Structure Plans) highlight an important land use planning policy gap that currently exists. In addition, a potential oversupply of I-4 Limited Service Industrial Land also may exist, if all lands identified in the 1996 'Southeast Industrial Area Structure Plan' as 'Industrial/Limited Service Industrial' are available for I-4 development. Eliminating this oversupply of future I-4 lands is required to focus future I-4 industrial development in areas that either abut or are contiguous with existing I-4 areas (in sections 22 or 23). Another option would be locating future I-4 lands on city owned leased lands. This would help ensure that I-4 development is truly an interim development activity.



INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

Table 6: Developed and Vacant Land Supply by Land Use Designation in the Southeast Industrial Area

(hectares)

Developed Area					Vacant Area					Total Southeast Industrial Area
I-2	I-3	I-4	OTHER	UR	I-2	I-3	I-4	OTHER	UR	
1,442	403	381	196	1,343	295	0	88	14	1,071	5,233

LAND DEMAND

Previous Demand Estimates

The *Calgary Industrial Land Requirements, 1997 - 2046* consulting report prepared by Brown and Associates provided a forecast of industrial land demand by major industrial sector for the original *ISTGMS* prepared in 2000. Total annual demand was estimated at 97 hectares (240 acres) per year, excluding commercial development. Commercial activity (office and retail development) is estimated to add 24 hectares (60 acres) per year to industrial land demand. Twenty-five percent of all industrial lands are used for commercial purposes and of that, 16 to 20 hectares or 40 to 50 acres per year are absorbed for retail uses. Suburban office development is estimated to require 4 to 6 hectares (10 to 15 acres) per year. Average annual land demand, including commercial uses is, therefore, estimated at between 117 to 123 hectares (290 and 305 acres) per year. Although 2003 indicates significantly higher land absorption levels, further years of above average absorption will be required to adjust this expected rate higher.

Land Demand Update

Comparing the land supply totals from the previous industrial report with the totals determined in 2003 provides an estimate of city-wide absorption of industrial land. The year's absorption (2003) of land by industrial area is provided in Table 7.

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Table 7: Land Absorption: 2003

Industrial Area	Land Absorbed
North/Northeast	59
Southeast	93
Central	0
Northwest	13
Total	165

A total of 165 hectares (408 acres) of land have been absorbed by industrial since the previous report. The area of major absorption over the forecast period was the Southeast Industrial Area, at 93 hectares (230 acres) of land absorbed. The Northeast Industrial Area had absorption of 59 hectares (146 acres). Land inventory in the northwest area was reduced by 13 hectares (32 acres).

Table 8 indicates years of remaining land supply by supply category, based on average demand estimates.

Table 8: Estimated Years of Serviced Land Supply by Category
(hectares)

	Immediate Land Supply	Short Term Land Supply	Long Term Land Supply	Total
Total Supply	639	1,164	2,061	3,864
Years of Supply Remaining @ the estimated absorption rate of 120 hectares per year	5.3	9.6	17.0	31.9

Immediate supply totals 639 hectares (1,579 acres), or 5.3 years of supply at the forecast absorption rate of 120 hectares (300 acres) per year. This total suggests that a sufficient supply of serviced land is currently available. A further 10 years of supply (1,164 hectares or 2,876 acres) are available on short-term (lands with one or two services in place).

Significant tracts of land are available in long term supply (2,061 hectares or 5,092 acres). The removal of land areas anticipated for wetland areas abutting Forest Lawn Creek may lower future industrial supply significantly.

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Future short-term demand for industrial land will be met within the North/Northeast and the Southeast Industrial Areas. The Central Industrial Area is largely built out except for 28 hectares (69 acres) scattered throughout the area and new industrial lands available in the Deerfoot Meadows commercial development.

The development of the Eastlake Industrial Park in the southeast has provided the largest tracts of industrial land for industrial developers and end users. Phase I of the Eastlake development has been completed sold out. Approximately 200 acres of industrial serviced land have been acquired, largely by industrial development companies for build to suit/lease industrial product. Corporate Properties anticipates that Phase II of the Eastlake development will be available in late 2005. As anticipated in last years report, Eastlake development has been heavily subscribed by the Calgary industrial development and end user community, resulting in diminished absorption rates for land available in the Freeport industrial development. With Phase I of Eastlake completed sold, and no further supply available until early in 2006, industrial users will again be looking for suitable land in the northeast, or delaying land acquisition until phase II of the Eastlake project is brought to the market. Approval of the *Stoney Industrial Area Structure Plan* has been delayed until early/mid 2005 with the result that no further industrial land supply will be available (outside of the Freeport Industrial Park NE, and build to suit sites that remain in the Southbend industrial area, or redevelopment opportunities). Based on this information, Table 9 provides a short-term forecast of industrial land demand.

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Table 9: Forecast Absorption of Serviced and Planned Land by Industrial Area

Industrial Area	Forecast Land Absorption 2004-2008
North/Northeast	
Total Absorption @ 30 to 40 hectares per year	150 - 200 ha
Southeast	
Total Absorption @ 60 to 70 hectares per year	300 - 350 ha
Central	
Total Absorption @10 hectares per year	28 ha
Northwest	
Total Absorption @1 to 2 hectares per year	5 - 10 ha
	~ 480 - 590 ha

Based on the rapid absorption of industrial land in the Southeast Industrial Area, and the short-term absorption of remaining lands in the Central Industrial Area, land absorption city-wide was predicted **in last year's report** to remain below the expected 120 hectares (300 acres) per year level until new industrial properties in the Southeast Industrial Area were brought to market. City-wide land absorption was predicted to total 91 to 111 hectares (225 to 275 acres) per year. In fact, in 2003, land absorption was significantly higher. Absorption of land is expected to remain high in 2004, given the build out anticipated in Eastlake.

In 2003, land absorption in the North/Northeast Industrial Area was above the forecast of between 30 and 40 hectares (75 to 99 acres) at 59 hectares (146 acres). Higher than expected absorption over the past year occurred despite ongoing delays in approval of the *Stoney Industrial ASP*. Land absorption in the Southeast Industrial Area is forecast to remain high at 60 to 90 hectares. New development in the Central and Northwest is expected to be minimal (5 to 10 hectares) over the coming year.

Discussion of Land Supply and Absorption Estimates

Tables 3 to 6 presented an overview of city-wide industrial land supply and absorption. Immediate serviced land supply city-wide provides for an expected 5.3 years of absorption. The completion of land sales in Eastlake Phase I has resulted in limited inventories of available serviced land supply in the southeast. Supply constraints in the southeast may prompt increased industrial takeup of land available elsewhere, or redevelopment of existing older industrial sites. A more significant short term market may be the development of self-serviced DC(I-2/I-4) sites. A number of applications for this type of development have been received within the City's jurisdiction, as well as east of 84 Street S.E. in the Municipal District of Rockyview. Ongoing negotiations and potential delays in finalizing the Shepard Constructed Wetland Project, and further

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negotiations for lands required for wetland areas, environmental reserve and pathways along Forest Lawn Creek, could prompt even more industrial developers to acquire unserviced Urban Reserve lands for large scale limited service development.

Emerging Trends

The steady absorption of industrial land in 2003, indicates the continuing importance of the industrial areas to Calgary's ongoing economic growth. Significant inventories of serviced land are available city-wide, in the two major policy categories: serviced land supply and planned land supply. However land supply constraints will continue to be experienced in some of the industrial areas. The successful sale of all Phase I lands in Eastlake indicates the depth of the demand for serviced industrial land. Until late 2005/early 2006, no new major industrial land developments are anticipated. However, a number of vacant sites remain for build to suit and lease product in a variety of locations. The completion of the Shepard Wetlands Constructed Project is required to open up additional industrial lands in the southeast. However, parks related development along the 'Forest Lawn Creek' and related pathways could result in significant loss of future industrial land capacity. Negotiations between Parks and Corporate Properties are continuing, with some estimates for park requirements ranging between 300 to 500 acres for the existing creek and related linear park system.

Servicing of the northwest industrial area is limited to the Spyhill Business Park area. In the northeast area, completion of the Stoney Industrial Area Structure Plan would open up a significant portion of the northeast industrial area for development, *although at densities that will limit retail, office and traffic intensive warehouse/distribution uses.* The development of the Aurora Business Park is currently in the planning stages, and 2 to 3 years away from development assuming the planning work proceeds as anticipated. These factors point to continued absorption of serviced industrial land where it can be found over the balance of 2004 and through 2005: the Eastlake Industrial Park, the Freeport Business Park, Westwinds, leasing opportunities on lands available at the Airport, and smaller vacant parcels in the Southeast industrial area and build to suit sites. There will also be increased incentive to find suitable redevelopment sites in older industrial areas.

APPENDICES

Appendix 1: Context of the Industrial Strategy

Appendix 2: Additional Industrial Area Maps and Tables (Maps 11 to 22)

APPENDIX 1: CONTEXT OF THE INDUSTRIAL STRATEGY

The *Industrial Area Growth: Information Update* is one part of a larger initiative to monitor city-wide growth and coordinate capital investment.

The *Residential Suburban Growth: Information Update* has provided a coordinated response to the planned provision of residential infrastructure for over a decade. It also provides a mechanism to review growth expectations of the private development community.

Accommodating Growth: A Framework for Coordinating Municipal Capital Investment (The Framework) illustrates growth-related capital projects for all growth areas around the city. The three documents – *The Framework*, the *Residential*, and the *Industrial* growth reports– form the basis for tracking development, monitoring land supply and demand, and coordinating capital investment in Calgary.

The Calgary Plan provides the general policy context for all work in industrial areas, and states that efforts should be made to:

- Attract and retain suitable business and industry to Calgary by fostering economic diversification and providing a climate that supports and enhances economic activity. (2-3.1A)
- Endeavour to ensure the availability of competitively priced, easily serviceable and developable land for industrial purposes. (2-2.2.6A)
- Cooperate with industrial land owners and developers in order to:
 - make existing industrial areas more attractive to new businesses
 - provide high quality industrial areas in the future. (2-2.2.6B)
- Require industrial firms to make a positive contribution to the environment of the surrounding area, particularly where they occupy sites adjacent to residential development. (2-2.2.6C)
- Explore various means of financing utilities in industrial areas to reduce the initial capital outlay required by industry. (2-2.2.6D)
- Encourage the relocation, where appropriate, of low intensity, functionally obsolete or incompatible non-residential land uses in the built-up area to peripheral areas and encourage vacated sites to be developed for more appropriate uses. (2-2.2.6E)
- Monitor the need for serviced industrial land in a manner similar to the way in which residential land supply requirements are reviewed through the *Short Term Growth Management Strategy (RSTGMS)*. (2-2.2.6F)
- Protect appropriately located industrial development from undue encroachment of residential development in cases where the nature of the industrial activity requires separation from residential uses. (2-2.2.6G)

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In addition to this policy framework, more specific industrial policies were approved by Council in 2000. These policies are listed below:

- The City of Calgary supports the provision of a full range of industrial uses suitable within an urban municipality. In this context, The City of Calgary should ensure that up to date area structure plans are in place sufficient to accommodate industrial growth demands in all industrial areas through the medium term (i.e. a 15-year supply).
- Review and amend existing area structure plans to reduce the amount of industrial land with policy support for limited serviced industrial uses, helping to better reflect the appropriate need for this form of industrial development within the city.
- Through future planning processes, explore the merits and opportunities for serviced high quality linear industrial development to locate along the city's existing and future expressways that may take advantage of the visibility and access these roads provide.
- The City of Calgary shall endeavour to maintain a supply of serviced industrial land and a variety of readily available parcels in a variety of sizes and locations, to meet the broad industrial market demand in the short-term.
- Consider the limited provision of non-industrial uses in industrial areas that support industrial development, but recognize the primacy of industrial uses. Re-examine the I-2 land use district to ensure the list of uses are appropriate within industrial areas.
- The City will monitor and analyse the supply of vacant fully serviced/serviceable industrial lands, vacant potentially serviceable industrial lands and vacant unserviceable industrial lands in the short-term in order to fully inform industrial planning and development decisions. The information base of this *Strategy* should be updated on an annual basis.
- To facilitate development, decisions on capital expenditures relating to the extension of Municipal Water, Sanitary and Storm and Transportation systems are made through the normal budgeting process. These decisions will be made strategically by considering:
 - That within the context of the overall capital budget, the relative importance of capital expenditures supporting growth in the industrial sector of the city's economy;
 - If identified, an assessment of growth priority areas resulting from the Strategy;
 - The capital cost implications of infrastructure extensions and improvements including the City's financial capability;
 - If identified and explored, alternative infrastructure funding options;
 - An understanding of industrial land supply and demand in all industrial areas of the City and surrounding region; and
 - The impact of the provision for shallow utilities and other services.

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This report provides an overview of recent industrial development activity, detailed information on land supply, and estimates of future land demand. The report is the next step forward in providing better technical information required for an improved understanding of the needs and requirements of the industrial land and business community in Calgary. It also provides the opportunity for the industrial development community to provide feedback to the Administration. Ongoing regular communication between the Administration and the industry on general industrial policies is one of the major benefits expected from the industrial land inventory reporting process.

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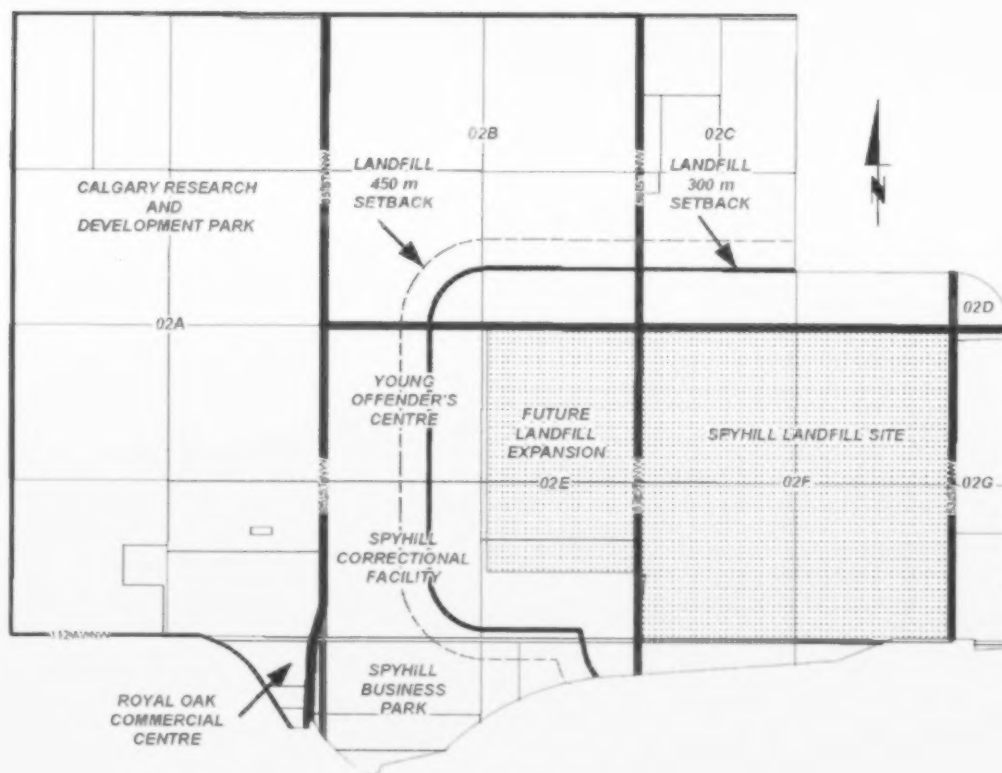
Map 12: Southeast Industrial Sub-Areas (May 2004)



Map 13: Central Industrial Sub-Areas (May 2004)



Map 14: Northwest Industrial Sub-Areas (May 2004)



Legend

 Industrial Sub-Area Boundary

500 250 0 250 500 1 000
Metres



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Map 15: North/Northeast Industrial Area Development Activity (2004)







Map 18: Northwest Industrial Area Development Activity (2004)



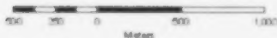
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Estimated \$ Value of Building Permit

- < \$500 K
- \$500K - \$1M
- \$1M - \$5M
- > \$5M

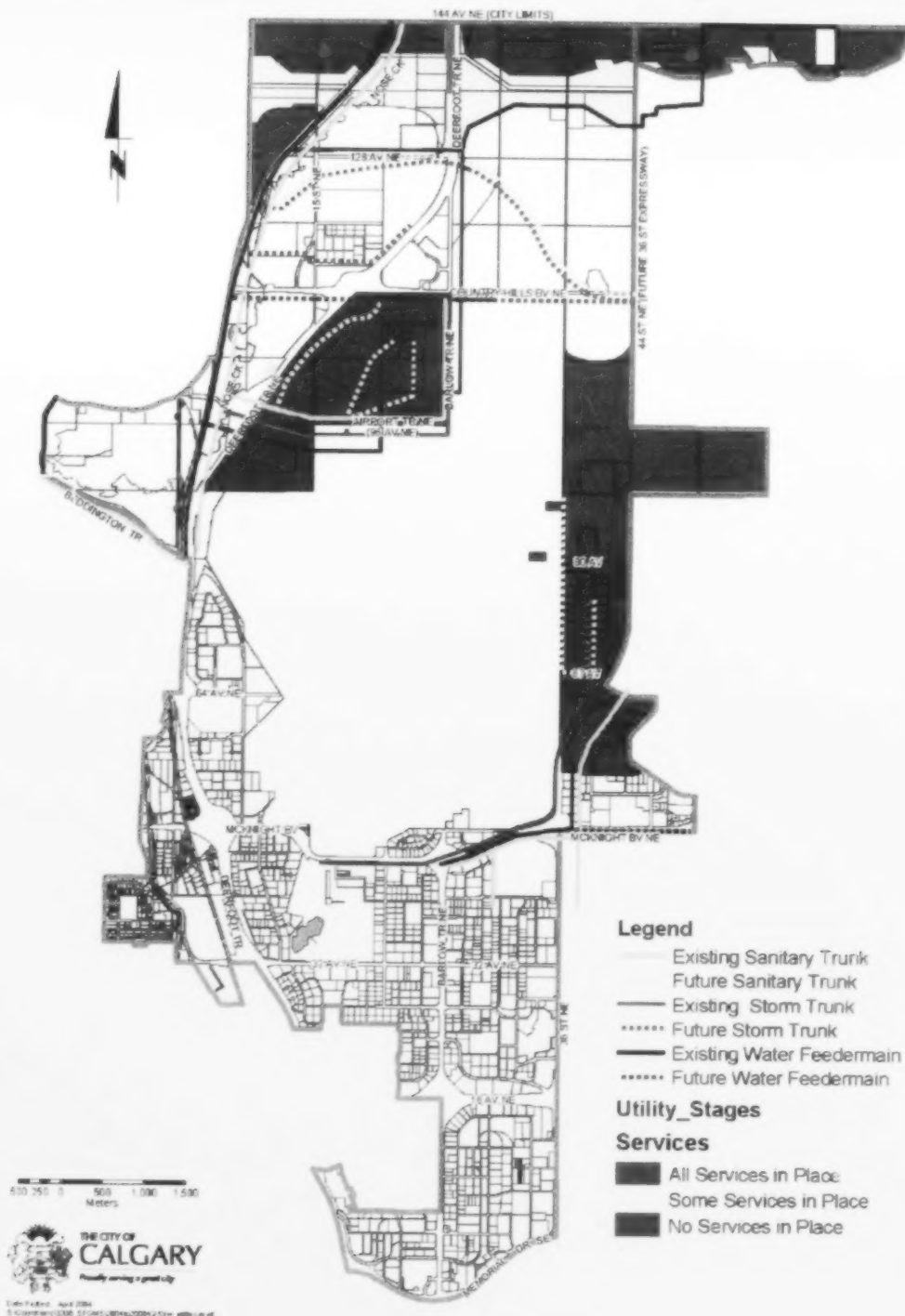
General Building Permit Category

- Commercial
- Industrial

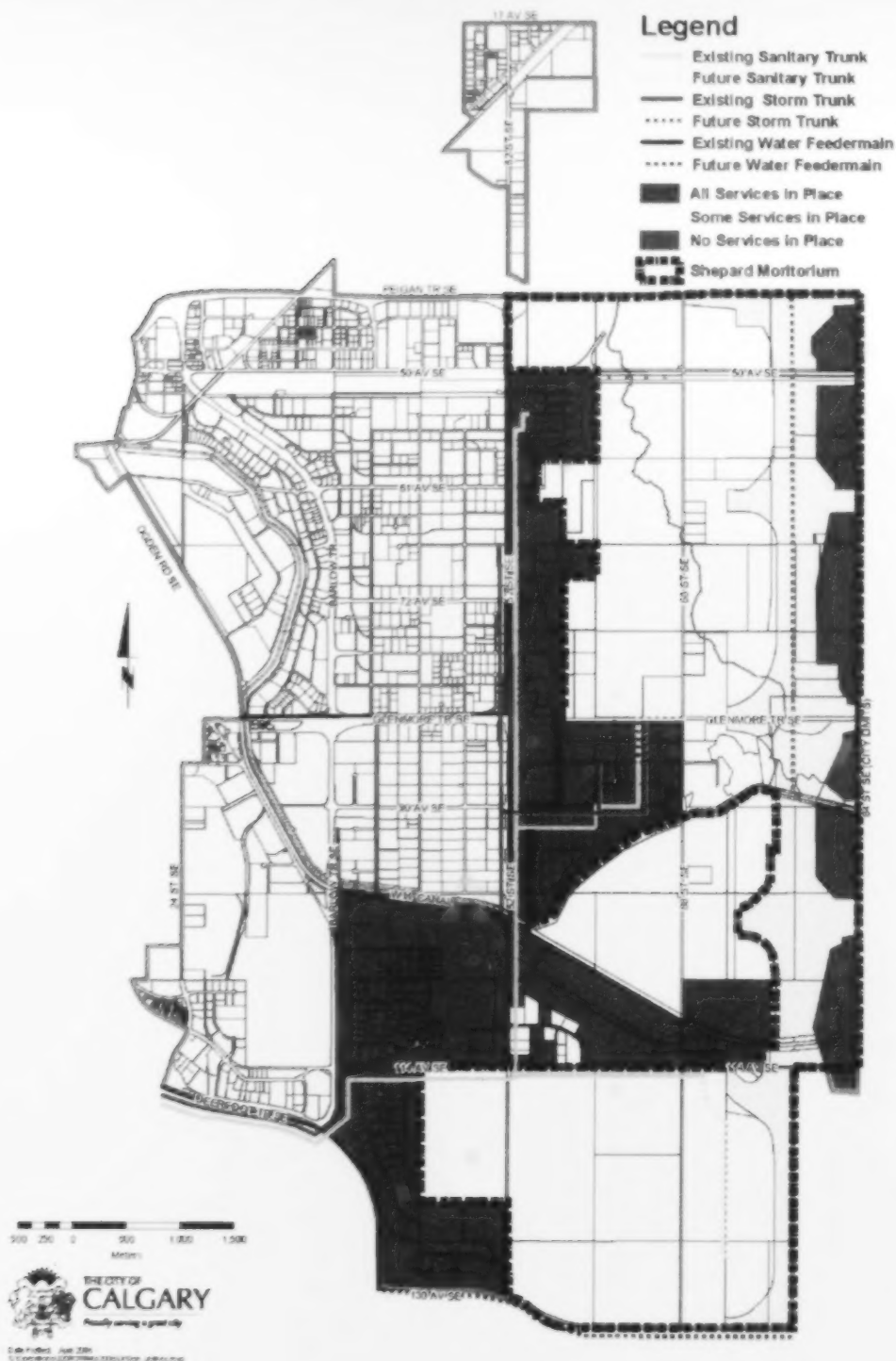


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Map 19: North/Northeast Industrial Storm, Sewer and Water Servicing



Map 20: Southeast Industrial Storm, Sewer and Water Servicing



Map 21: Northwest Industrial Storm, Sewer and Water Servicing





INDUSTRIAL AREA GROWTH: INFORMATION UPDATE 2004-2008

Transportation Growth-Related Capital Projects 2004-2011

CAPITAL PROJECTS

MAPREF	DESCRIPTION	Short Term	MidTerm	Long Term	
		2004-2008 (5yr)	2009-2013 (10yr)	2014-2018 (15yr)	2019-2023 (20yr)
R01	BEDDINGTON TR/HARVEST HILLS BY RAMP	97	0	0	0
R02	50 AVE S JOSEPH RD INTERCHANGE	43	0	0	0
R03	GLENMORE TR/8 ST SE INTERCHANGE	1,481	0	0	0
R04	MACLEOD TR/ANDERSON RD INTERCHANGE (TPO)	962	0	0	0
R05	GLENMORE TR/ELTON TR/18TH ST INTERCHANGE, DESIGN + CONST (TPO, TIP)	101,088	0	0	0
R06	CROWCHILD TR / SHAGANAPPI TR INTERCHANGE (TPO)	236	0	0	0
R07	JOHN LAURIE BV AT 19ST/BRIGGS DR OVERPASS	1,500	0	0	0
R08	SHAWNESSY BLVD/MACLEOD TR INTERCHANGE (TPO)	4,384	0	0	0
R09	50TH AVENUE/CROWCHILD TRAIL INTERCHANGE (TPO)	3,927	0	0	0
R10	MACLEOD TR / ELTON PEDESTRIAN OVERPASS	1,517	0	0	0
R11	38TH ST NE/MCKINIGHT ME INTERCHANGE (INCL FLYOVER R) (TPO, TIP)	47,000	0	0	0
R12	56 AVE DEERFOOT TR TO BARLOW TR	139	0	0	0
R13	BEDDINGTON TR / DEERFOOT TR - COUNTRY HILLS BV (TIP)	9,100	0	0	0
R14	68 ST SE / MCKINIGHT DR - 17 AV TWINNING (TIP)	4,471	0	0	0
R15	BOW TR EXT. STRATHCONA BV - 85 ST SW	9	0	0	0
R16	CROWCHILD TR - 53 ST - NOSE HILL DRIVE (TIP)	13,270	0	0	0
R17	HWY 22X DEERFOOT TR - BOW RIVER (TIP)	21,400	0	0	0
R18	SHAGANAPPI TR / EDMONTON BV - CHD (TIP)	3,730	0	0	0
R19	BARLOW TR / GLENMORE TR - DEERFOOT TR	1,968	0	0	0
R20	GLENMORE TR SE - 52 ST - BARLOW TR	1,271	0	0	0
R21	GLENMORE TR / CROWCHILD TR - SARCEE TR (TIP)	7,500	0	0	0
R22	GLENMORE TR - 52 ST - 68 ST E (TIP)	7,582	0	0	0
R23	52 ST SE / GLENMORE TR - 130 AV (TIP)	18,810	0	0	0
R24	16 AV N - 8 ST E - 10 ST W (TIP)	28,749	0	0	0
R25	14 ST SW - 90 AVE - ANDERSON RD WIDENING (TPO, TIP)	8,600	0	0	0
R26	SARCEE TR @ FISH CREEK ANDER RD - 146 AVE (TPO, TIP)	23,301	0	0	0
R27	DEERFOOT TR - EXTENSION AND UPGRADING	8,880	0	0	0
R28	ANDERSON RD SW TWINNING - SARCEE TR TO 24 ST (TPO, TIP)	5,000	0	0	0
R29	FOOTHILLS/CHILDREN'S HOSPITAL CONNECTOR/ATCH (TPO)	2,600	0	0	0
R30	36 ST NE - NORTH OF MCKINIGHT BV - 64 AV (TPO, TIP)	3,918	0	0	0
R31	182 AV SE - E OF MACLEOD TO W OF SHAWVILLE WY - 4-8 LANE AND SIG (OIP)	2,900	0	0	0
R32	24 ST SE / GLENMORE TR TO 90 AV SE REALIGN 4 LANE (OIP)	2,500	0	0	0
R33	MARGUS OF LORNE TR / MACLEOD TR TO BOW RIVER BRIDGE - 2 TO 4 LANE (OIP)	6,000	0	0	0
R34	BOW TR / SARCEE TR TO 37 ST SW WIDENING + BUS BAYS (OIP)	12,600	0	0	0
R35	TRANS CANADA HWY / SHAGANAPPI TR - RAMPS AND SIGNALS (OIP)	2,000	0	0	0
R36	SARCEE TR / 17 AV SW DUAL LEFT TURN LANES (OIP)	1,600	0	0	0
R37	SARCEE TR / JOHN LAURIE BLVD TO COUNTRY HILLS BLVD, 2 TO 4 LANE (OIP)	3,000	0	0	0
R38	BOW TR / SARCEE TR - DUAL LEFT TURN LANES (OIP)	2,600	0	0	0
R39	BARLOW TR / CN RAIL CROSSING AT 50 AV SE (OIP)	2,000	0	0	0
R40	BOW TR / CROWCHILD TR - 37 ST W (TIP)	5,000	5,000	0	0
R41	GLENMORE TR / OGDEN RD - BOW RIVER STRUCTURE (TIP)	13,250	5,250	0	0
R42	CROWCHILD TR/SARCEE TRAIL INTERCHANGE (TPO, TIP)	0	23,000	0	0
R43	BEDDINGTON TRAIL / BEDDINGTON BLVD AND 11TH STREET (TPO, TIP)	0	20,000	0	0
R44	14TH STREET W/80TH AVE S INTERCHANGE (TPO, TIP)	0	12,900	0	0
R45	COUNTRY HILLS BV / BARLOW TR - COVENTRY BV (TIP)	0	10,500	0	0
R46	96TH AVENUE NORTH / DEERFOOT TRAIL TO 6TH STREET E (TPO, TIP)	0	16,000	0	0
R47	PARKDALE BV / TRANS CANADA HWY - CROWCHILD TR (TIP)	0	4,000	0	0
R48	JOHN LAURIE BV / SARCEE TR - 53 ST W (TIP)	0	5,000	0	0
R49	PEKIN TR / BARLOW - 52 ST E	0	9,000	0	0
R50	BARLOW TR/SOUTH OF 50 AV UNDERPASS	0	0	14,000	0
R51	14TH STREET HERITAGE DRIVE INTERCHANGE (TIP)	0	0	30,800	0
R52	GLENMORE TRAIL / RICHARD ROAD INTERCHANGE (TIP)	0	0	16,500	0
R53	14TH STREET / SOUTHLAND DR INTERCHANGE (TIP)	0	0	30,100	0
R54	MCKINIGHT BLVD / BARLOW TRAIL INTERCHANGE (TIP)	0	0	25,000	0
R55	14TH STREET / ANDERSON ROAD INTERCHANGE (TIP)	0	0	40,000	0

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Transportation Growth-Related Capital Projects 2004-2011

R56	14TH STREET W/ 75TH AVENUE INTERCHANGE (TIIP)	0	0	20,000	0
R57	GLENMORE TRAIL / 37TH STREET INTERCHANGE (TIIP)	0	0	25,000	0
R58	TRANS CANADA HIGHWAY / 68TH STREET E INTERCHANGE (TIIP)	0	0	16,500	0
R59	GLENMORE TRAIL / 14TH STREET W TO CROWCHILD TRAIL A (TIIP, TIIP)	0	3	75,000	0
R60	TRANS CANADA HIGHWAY / SHAGANAPPI TR TO SARCEE (TIIP)	0	0	37,500	0
R61	BARLOW TR / 112 AV - AIRPORT RD WIDENING (TIIP)	0	0	1,500	0
R62	BARLOW TR / MEMORIAL DR - 18 AV (TIIP)	0	0	5,000	0
R63	11 ST NE / DEERFOOT TR - NORTH OF 68 AV	0	0	3,700	0
R64	MIDNIGHT BV NE / 12 ST - 19 ST	0	0	10,000	0
R65	MACLEOD TR - WIDEN NORTHBOUND OVER BANNISTER RD SE	0	0	5,000	0
R66	SHAGANAPPI TR / JOHN LAURIE BLVD INTERCHANGE	0	0	18,600	0
R67	BEDDINGTON TR / COUNTRY HILLS BLVD INTERCHANGE	0	0	20,700	0
R68	MIDNIGHT BV / EDMONTON TR - 4 ST W	0	0	0	41,000
Rx	HANSON SIGNING INVENTORY / WORK ORDER SYSTEM	17	0	0	0
Rx	VIDEO SURVEILLANCE / AUTOMATED INCIDENT DETECTION	1,080	0	0	0
Rx	OPERATIONAL IMPROVEMENT PROJECTS	10,884	0	0	0
Rx	MAJOR ROAD OVERSIZE	3,400	0	0	0
Rx	DEVELOPMENT OF ACCESS ROADS	31,299	15,600	0	0
Rx	FUTURE PROJECTS	11,000	18,000	0	0
Rx	FUTURE LAND	11,422	10,400	0	0
Rx	STREETLIGHT D/T NEW DEVELOPMENT	598	350	0	0
Rx	ITS/TDM PROJECTS	750	4,800	0	0
Rx	PRIVATE SUBDIVISION CONSTRUCTION	6,700	6,250	0	0
Rx	NEW TRAFFIC SIGNALS & PED CORRIDORS	8,981	11,000	0	0
Rx	TRAFFIC SIGNALS-DEVELOPER WORK	7,800	7,000	0	0
Rx	PEDESTRIAN OVERPASSES	0	11,000	0	0
Total:		474,973	193,050	395,500	41,000

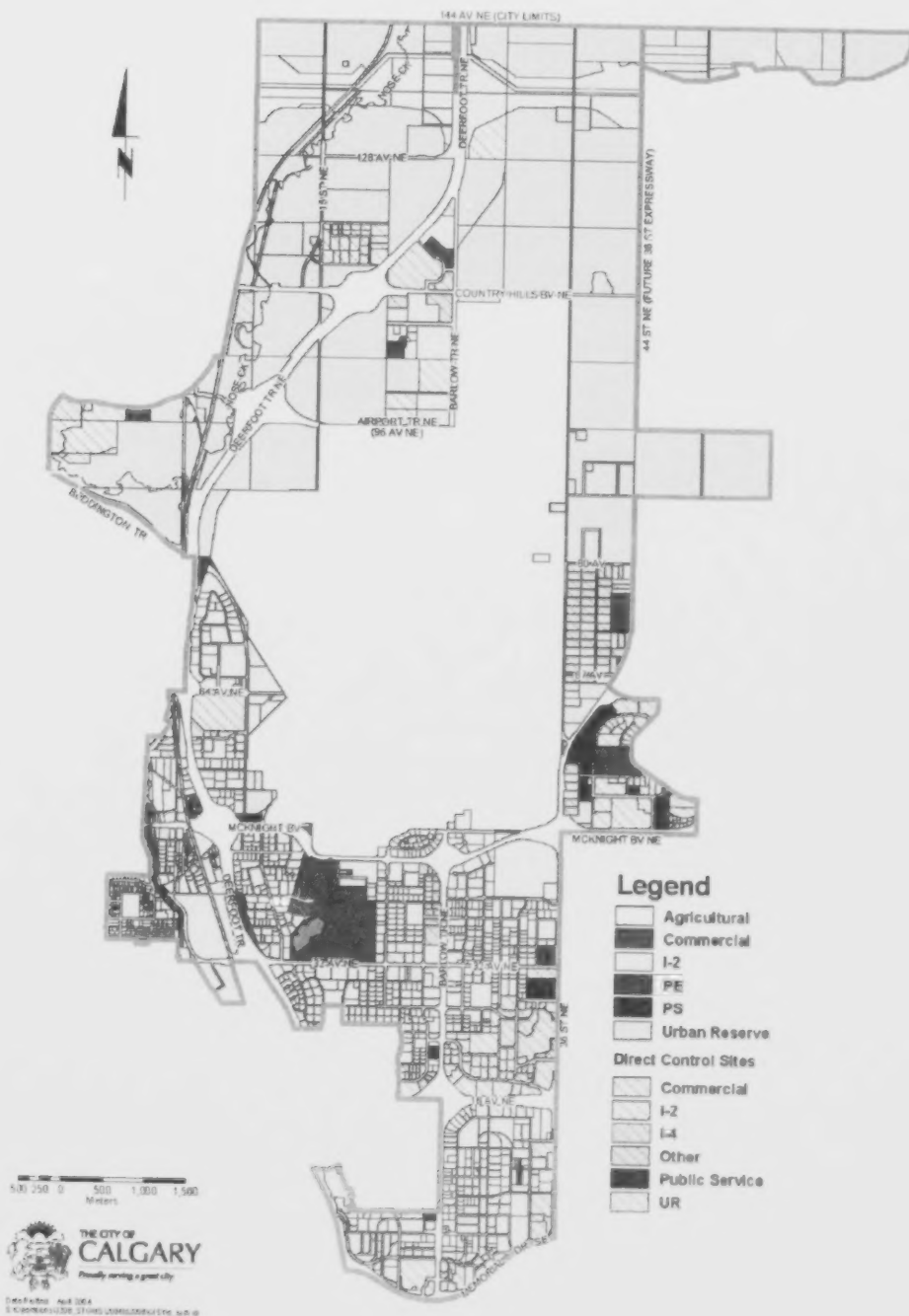
UNFUNDED

MAPREF	DESCRIPTION	Short Term	MidTerm	Long Term	
		2004-2008 (5yr)	2009-2013 (10yr)	2014-2018 (15yr)	2019-2023 (20yr)
Rx	SPATIAL DATA MODEL/GIS DATA VIEWER	220	0	0	0
Rx	STREETLIGHT SPATIAL MAINT PROJECT	350	0	0	0
Rx	NEW TRAFFIC SIGNALS & PED CORRIDORS	2,900	0	0	0
Rx	COLLISION ANALYSIS SYSTEM	500	0	0	0
Rx	VIDEO SURVEILLANCE SYSTEM	500	0	0	0
Rx	TRAFFIC COUNTERS	200	0	0	0
Rx	WEB SITE ENHANCE & DATABASE INTEGRATION FOR GIS	250	0	0	0
Rx	TRUCK TEMPERATURE SENSOR/ROAD SURVEY EQUIP	50	0	0	0
Rx	PRIVATE SUBDIVISION CONSTRUCTION	2,500	0	0	0
Rx	ITS/TDM PROJECTS	20,900	0	0	0
Rx	PEDESTRIAN OVERPASSES	10,000	0	0	0
Rx	OPERATIONAL IMPROVEMENT PROJECTS	12,500	0	0	0
Rx	PROGRAMMABLE MESSAGE BOARD	500	0	0	0
Total:		51,370	0	0	0

Grand Total: 526,343 193,050 395,500 41,000

(All figures in \$ 000's)

Map 23: North/Northeast Industrial Land Use Designation
(April 2004)





Map 25: Central Industrial Land Use Designation (April 2004)



